



FIG. 1A

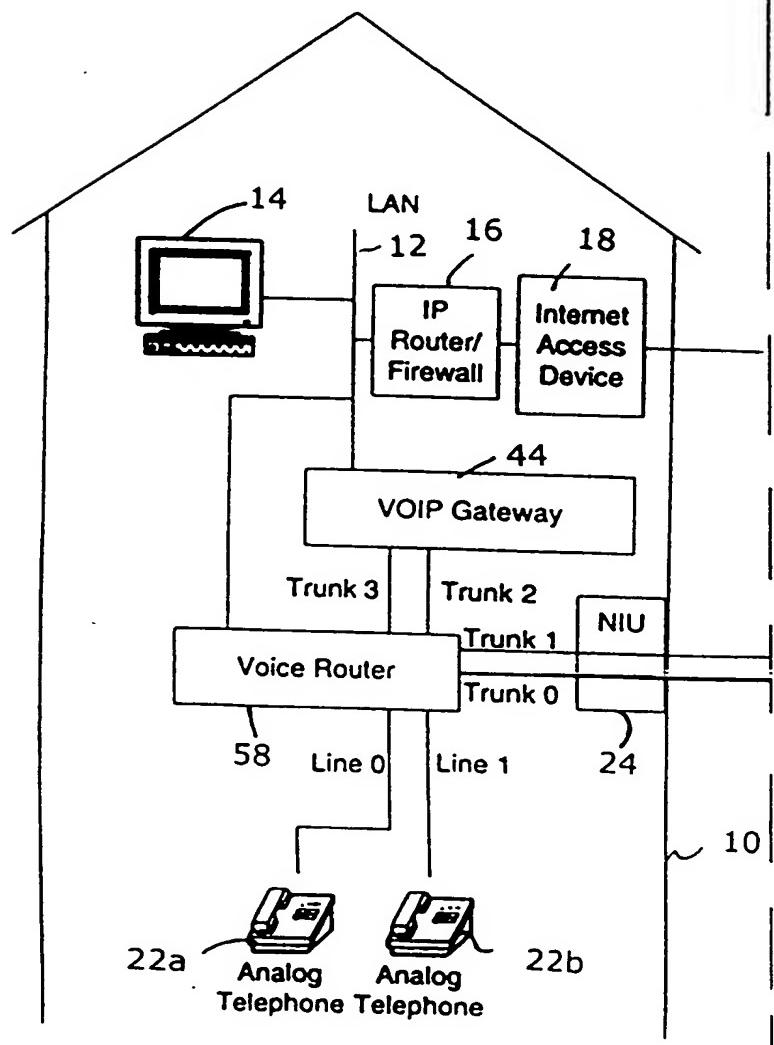


FIG. 1

FIG. 1A | FIG. 1B | FIG. 1C

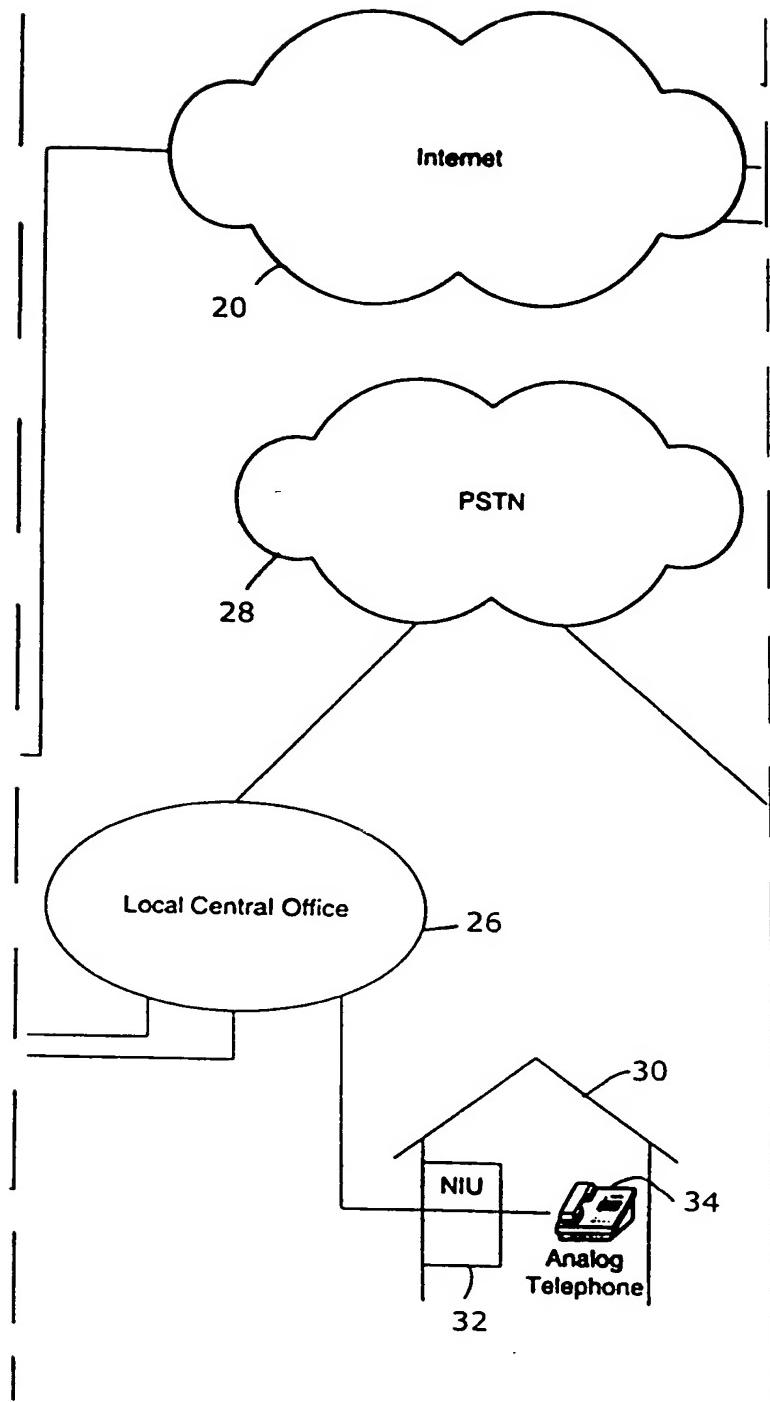


FIG. 1B

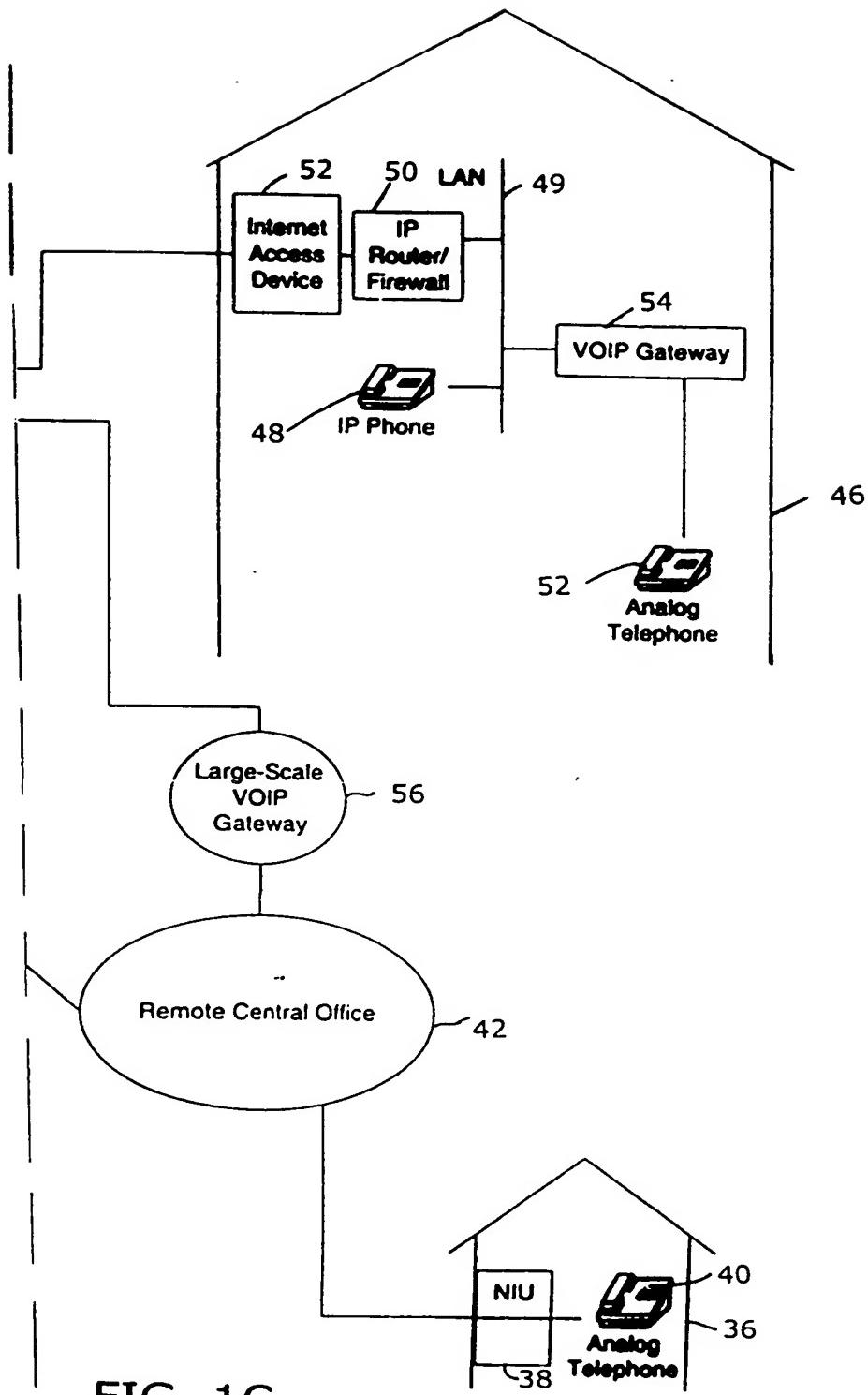


FIG. 1C

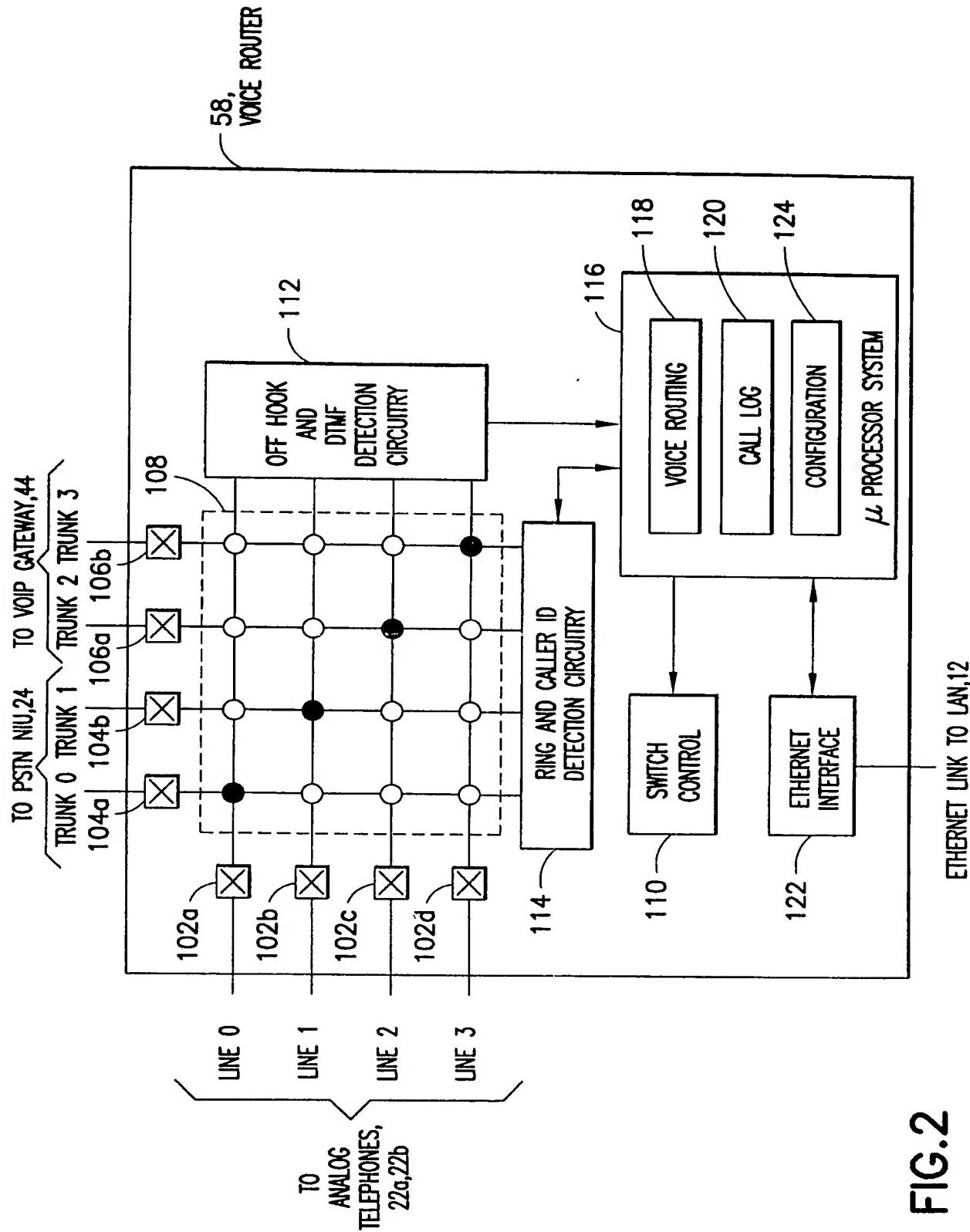


FIG.2

Inbound Routing Table

	Most Preferred Line Assignment		Least Preferred Line Assignment
trunk 0			
trunk 1			
trunk 2			
trunk 3			


 - Line ID

- Group of one or more Line IDs
(each Line of the Group rings concurrently)
- Ordered Groups of one or more Line IDs
(if any line of “most preferred group” is unavailable, proceed to next Group; for “first available” Group, each Line of this Group rings concurrently)

Fig. 3A

First Exemplary Inbound Routing Table

0	1	2	3
1	0	2	3
2	3	1	0
3	3	1	0

Fig. 3B

Second Exemplary Inbound Routing Table

0	1	2	3
(0,1)	2	3	FF
(0,1), (1,2)	3	1	FF
3	3	1	0

Fig. 3C

Outbound Routing Table

	Most Preferred Trunk Assignment		Least Preferred Trunk Assignment
line 0			
line 1			
line 2			
line 3			

Trunk ID

Fig. 4A

First Exemplary Type 1 (Local) Outbound Routing Table

1	0	2	3
1	0	2	3
1	0	2	3
1	0	2	3

Fig. 4B

First Exemplary Type 2 (Long Distance) Routing Table

2	3	1	0
2	3	1	0
2	3	1	0
2	3	1	0

Fig. 4C

Second Exemplary Type 1 (Local) Outbound Routing Table

0	1	FF	FF
1	0	FF	FF
1	0	FF	FF
1	0	FF	FF

Fig. 4D

Second Exemplary Type 2 (Long Distance) Outbound Routing Table

3	2	FF	FF
3	2	FF	FF
3	2	FF	FF
3	2	FF	FF

Fig. 4E

Trunk Ownership Data Structure for a given Trunk

Active Status Field (bit 7) '1' = Active (A) '0' = Inactive (I)	Optimization Status Field (bit 6) '1' = Currently Being Optimized (OP) '0' = Not Being Optimized (NOP)	If Active, then (bits 5-0) = Owning Call Object ID If Inactive, then (bits 5 - 0) = Default Trunk ID
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Fig. 5A

Line Ownership Data Structure for a given Line

Active Status Field (bit 7) '1' = Active (A) '0' = Inactive (I)	Optimization Status Field (bit 6) '1' = Currently Being Optimized (OP) '0' = Not Being Optimized (NOP)	If Active, then (bits 5-0) = Owning Call Object ID If Inactive and NOP, then (bits 5-0) = Trunk ID for Inbound and Outbound Call Processing
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Fig. 5B

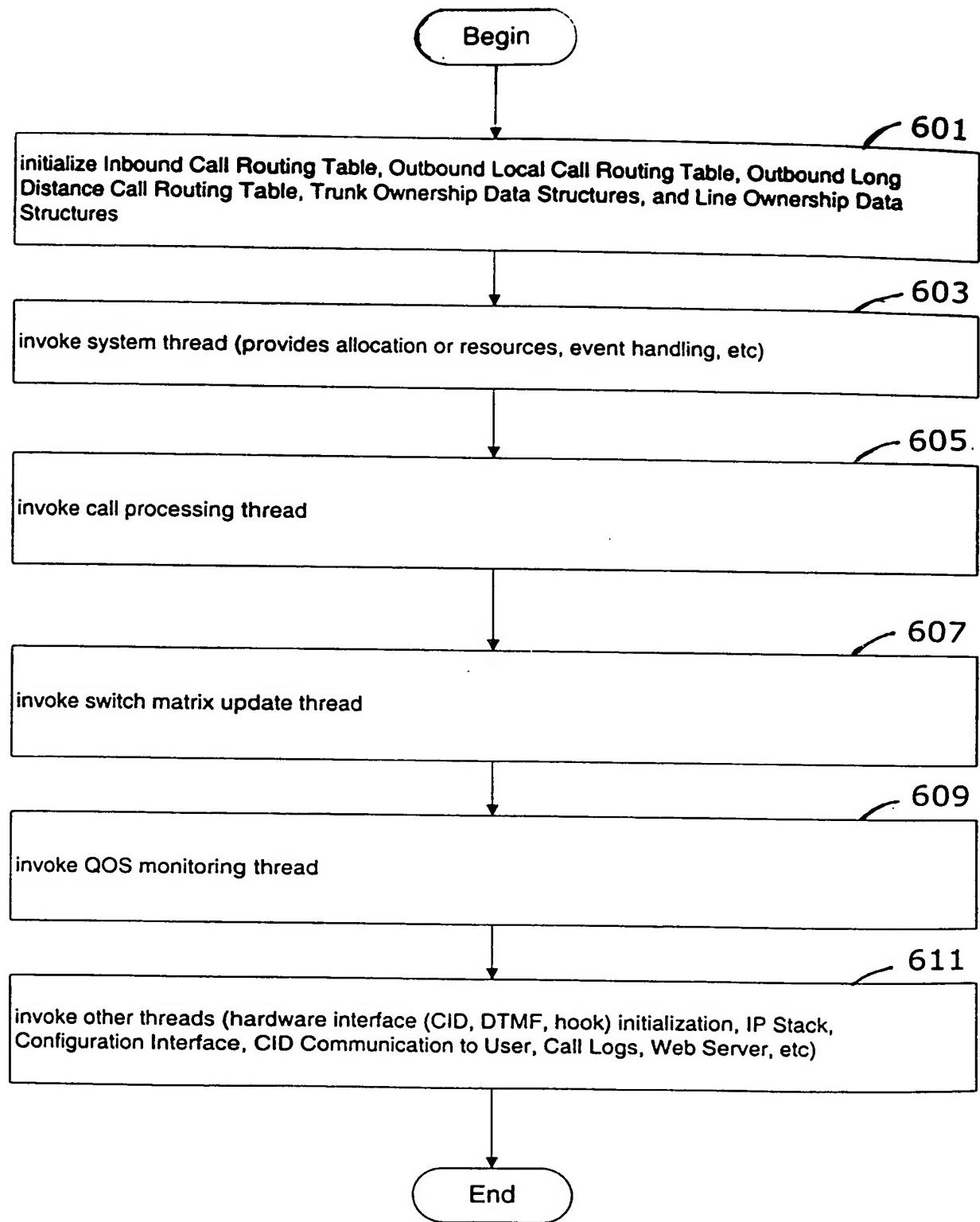


Fig. 6

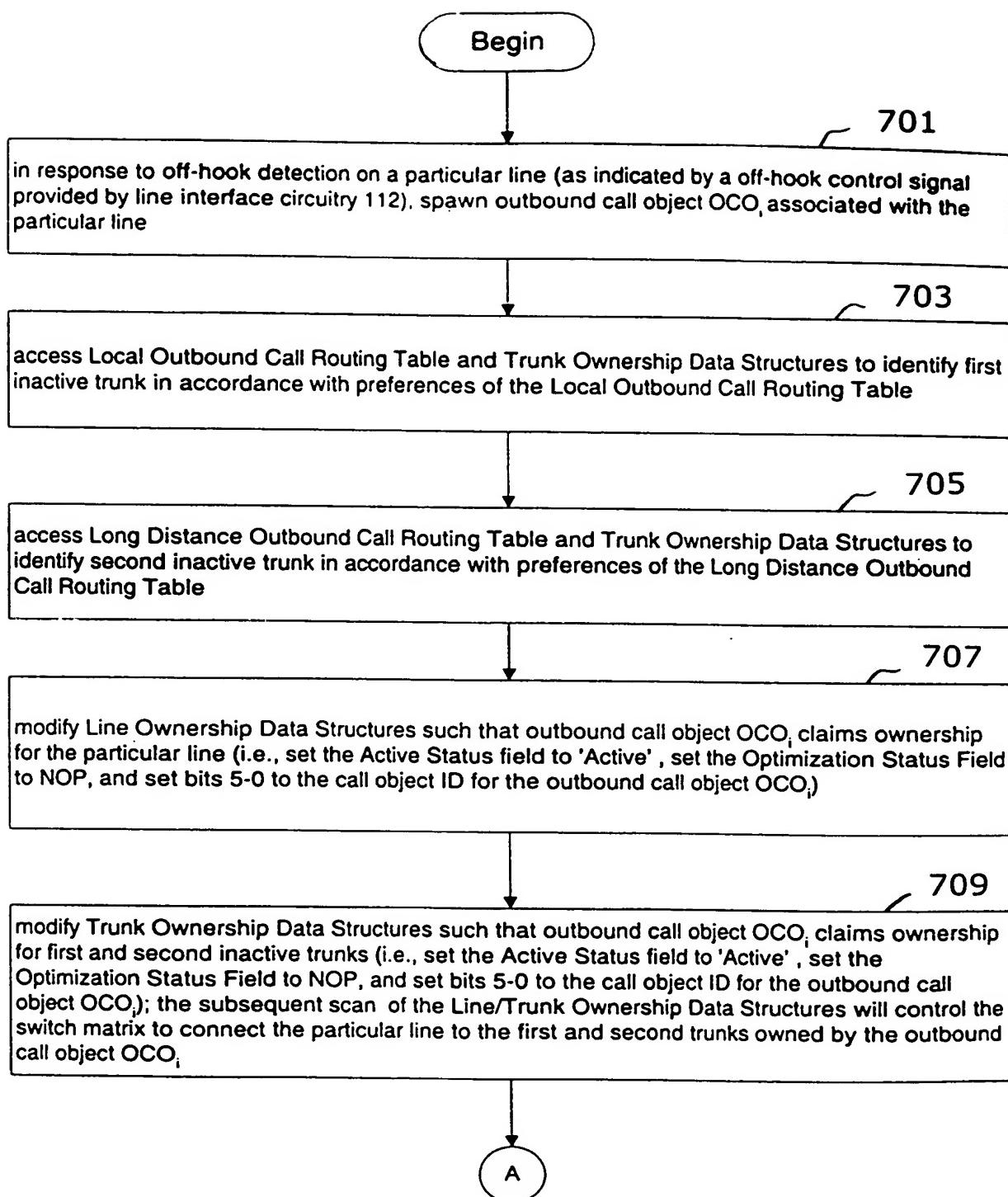


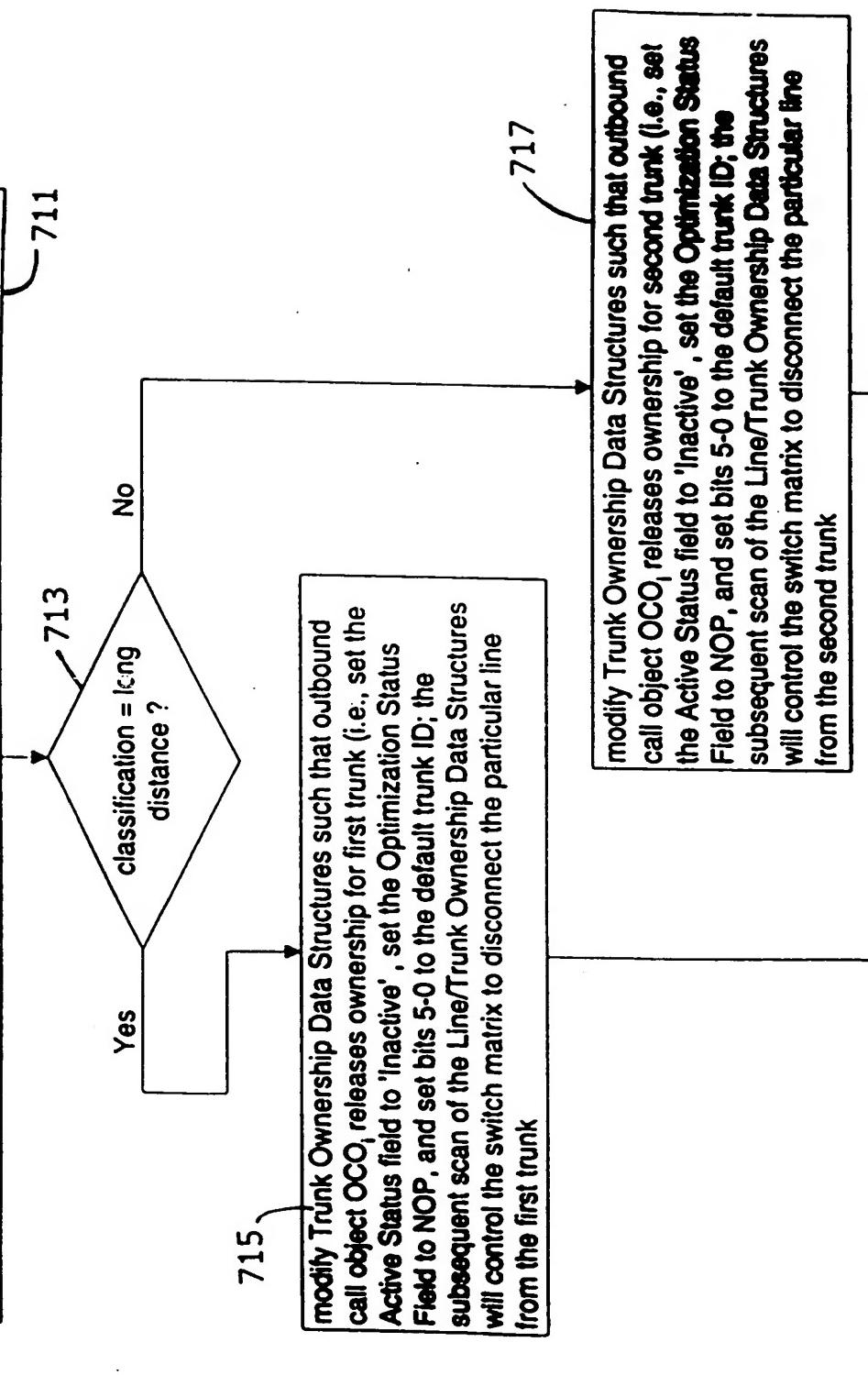
Fig. 7A

FIG. 7B.1
FIG. 7B.2

A

FIG. 7B.1

monitor and process DTMF digit signals (provided by line interface circuitry 112) to determine whether the call is classified as a local call or long distance call



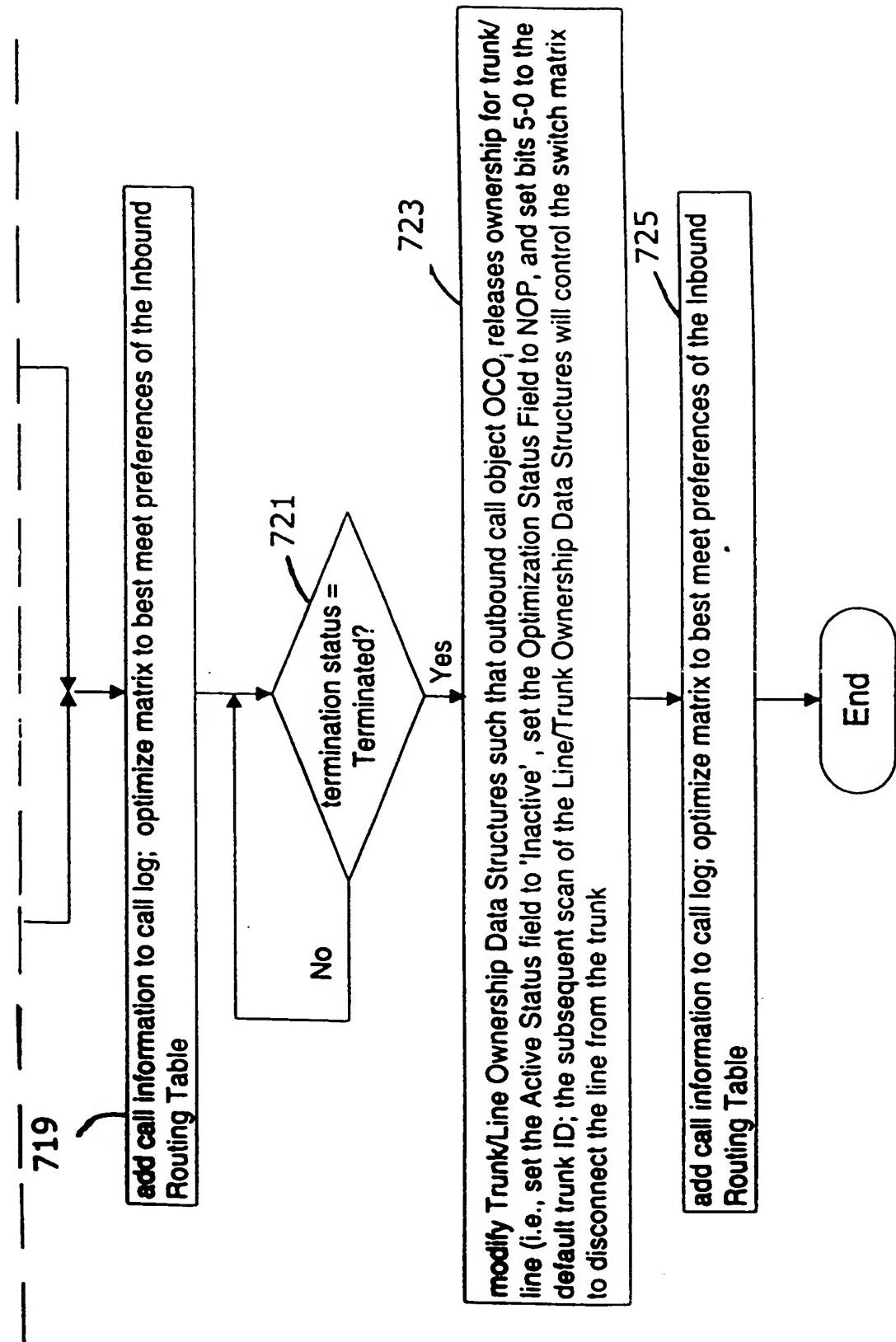


FIG. 7B.2

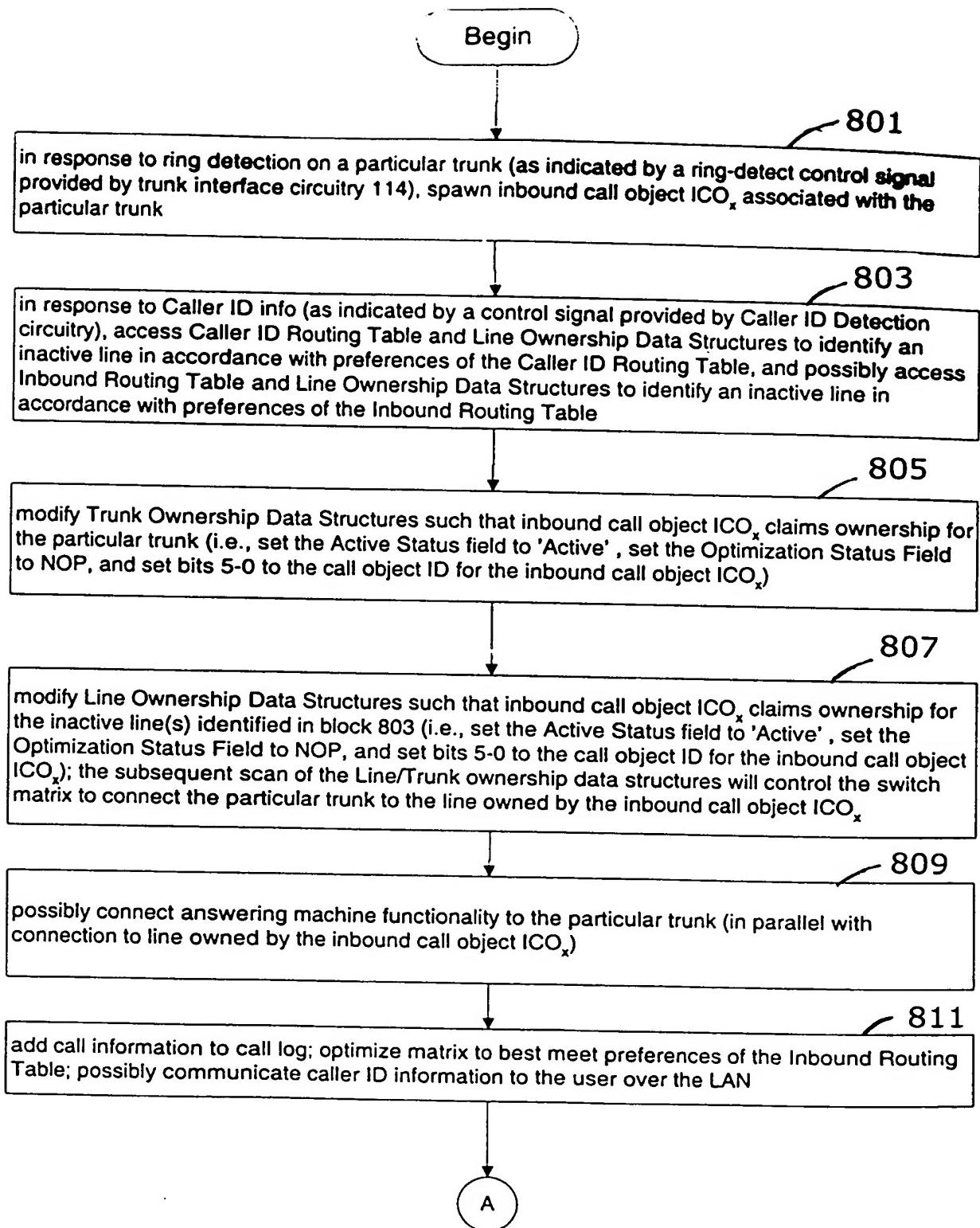


Fig. 8A

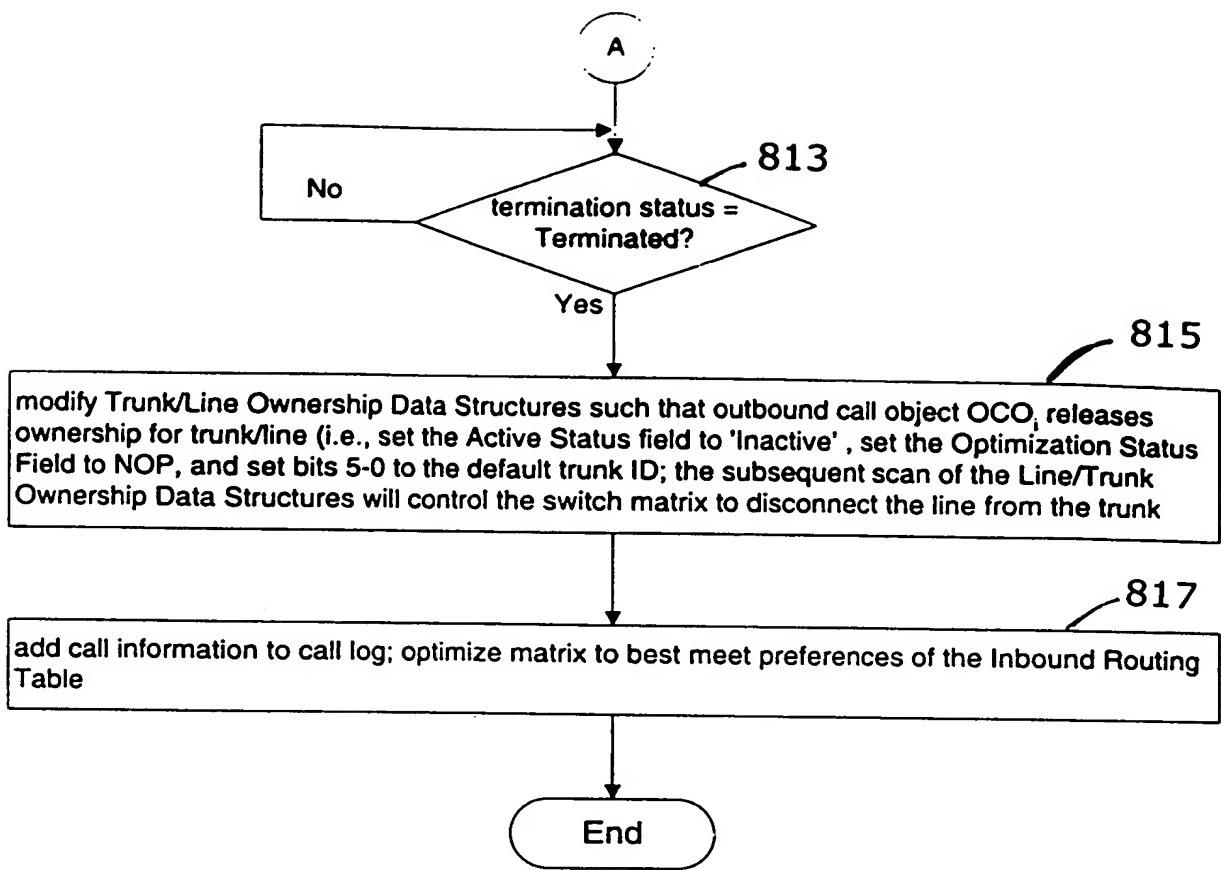


Fig. 8B

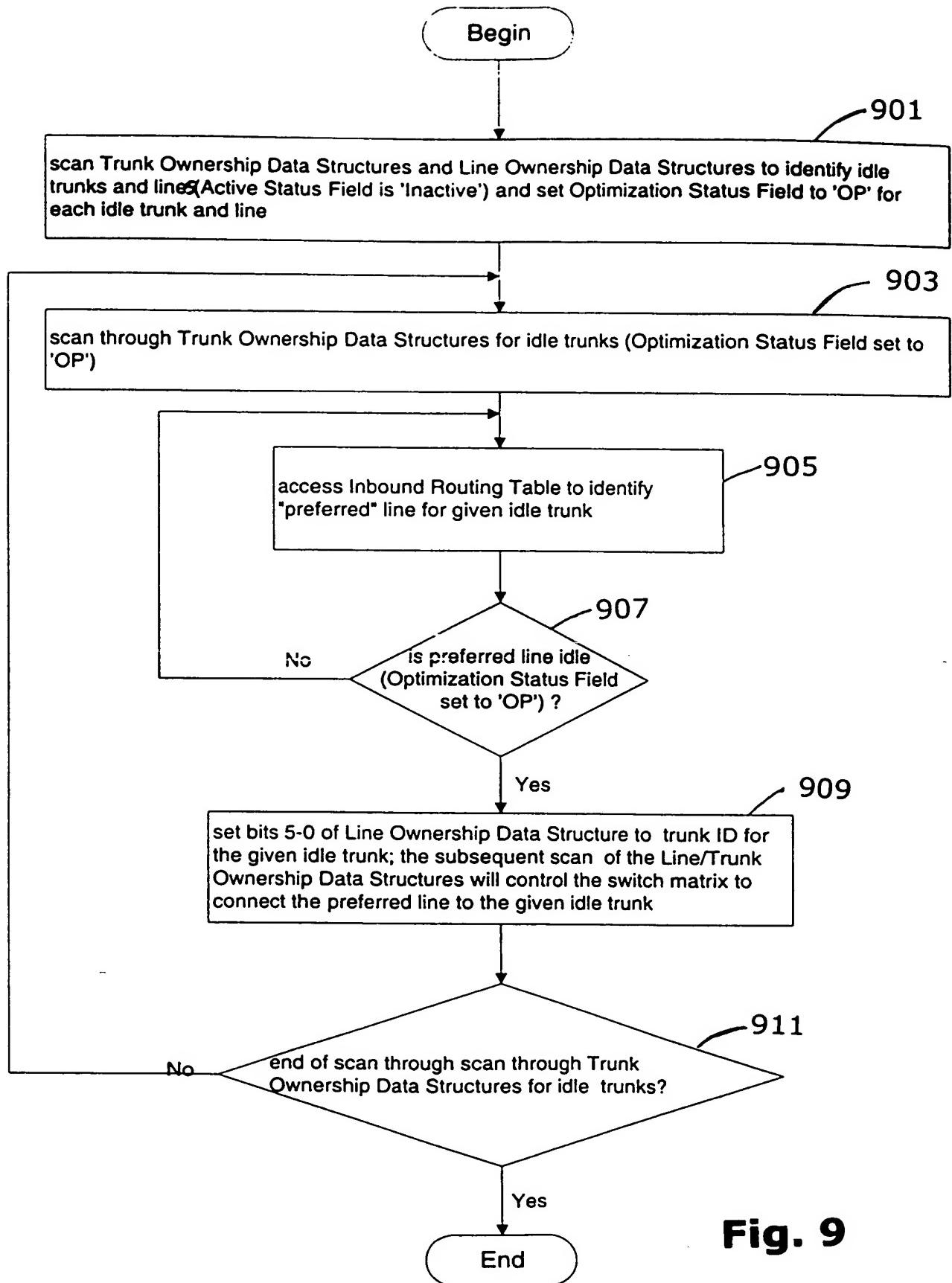
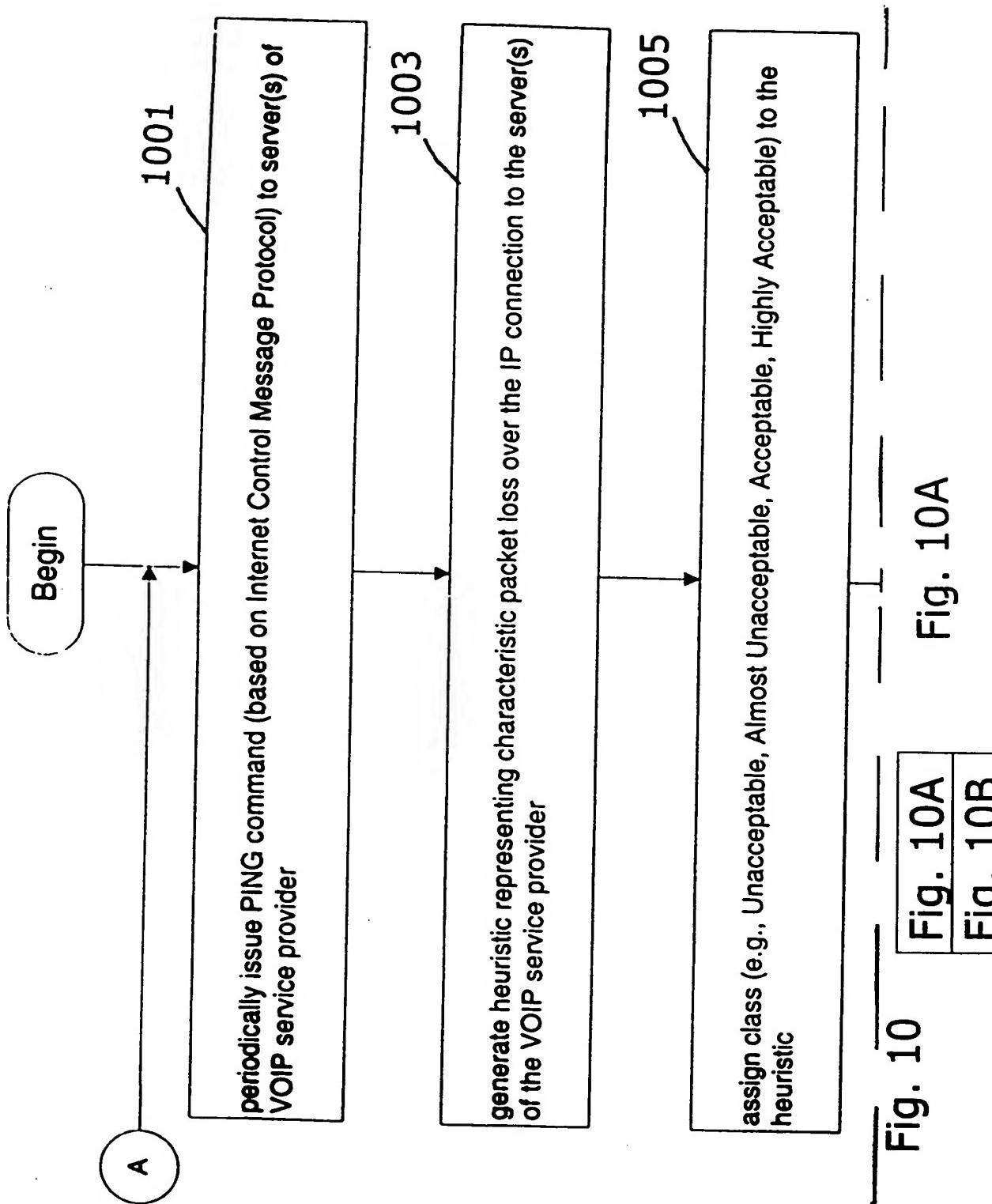


Fig. 9



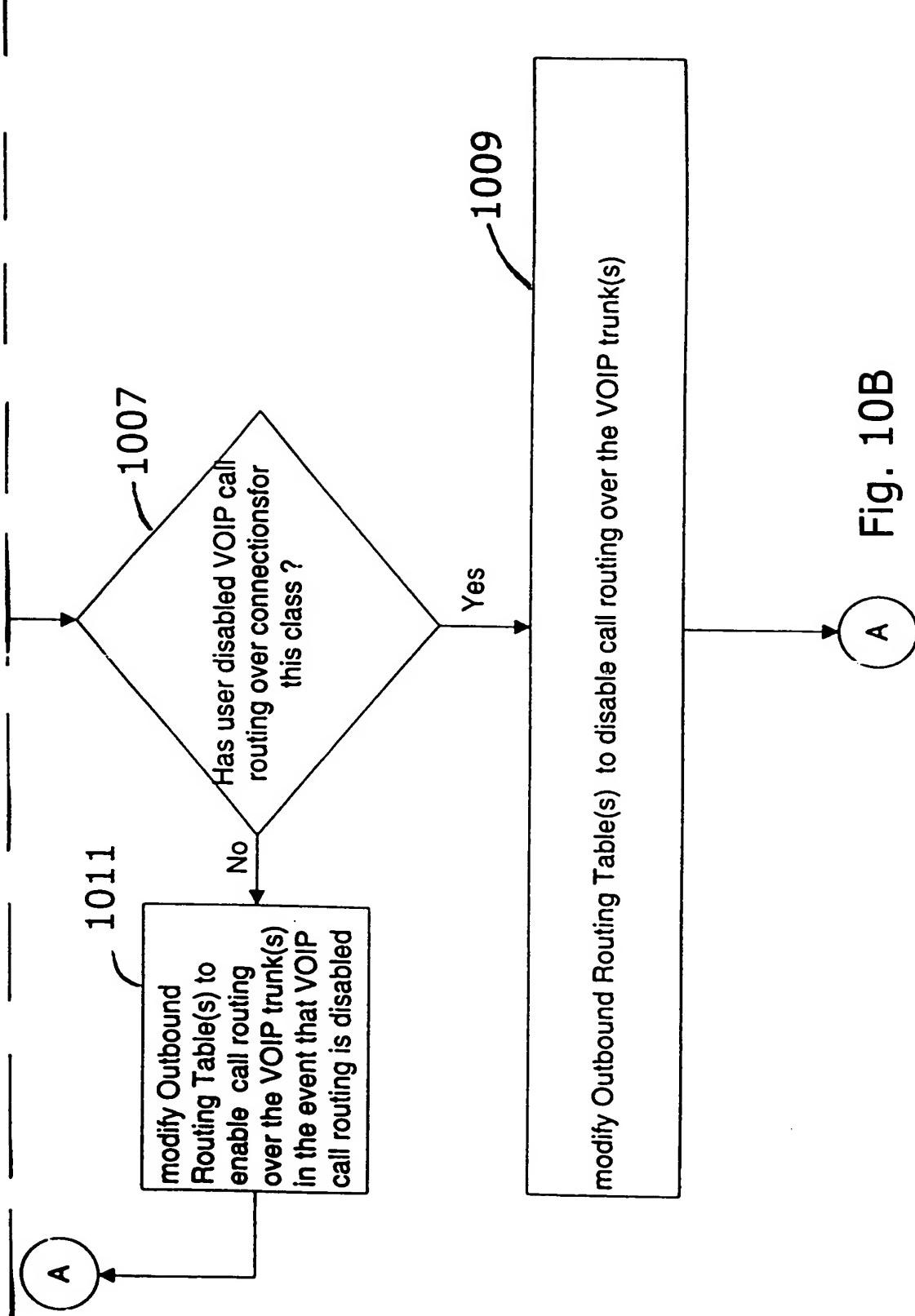
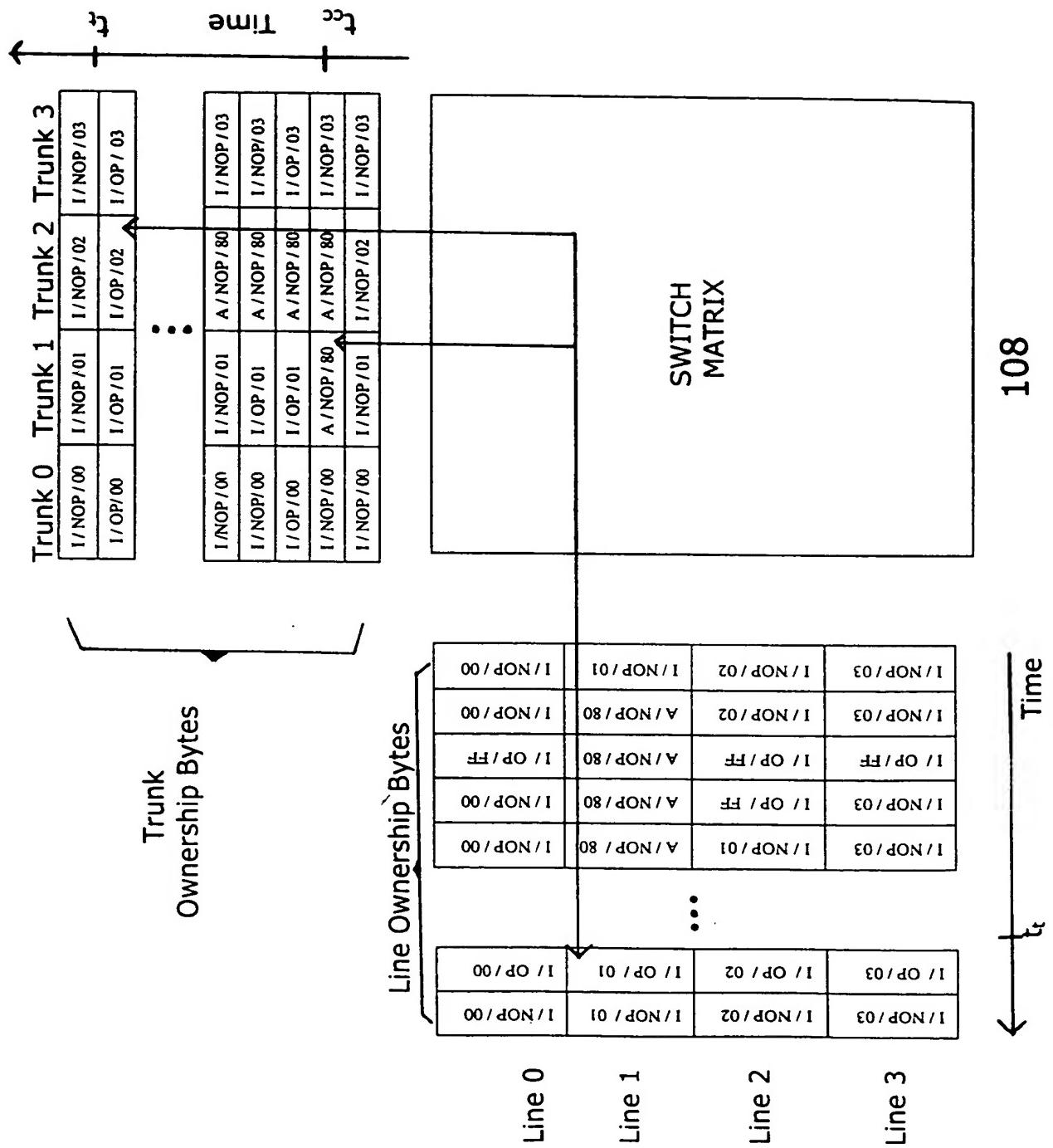


Fig. 10B

Fig. 11



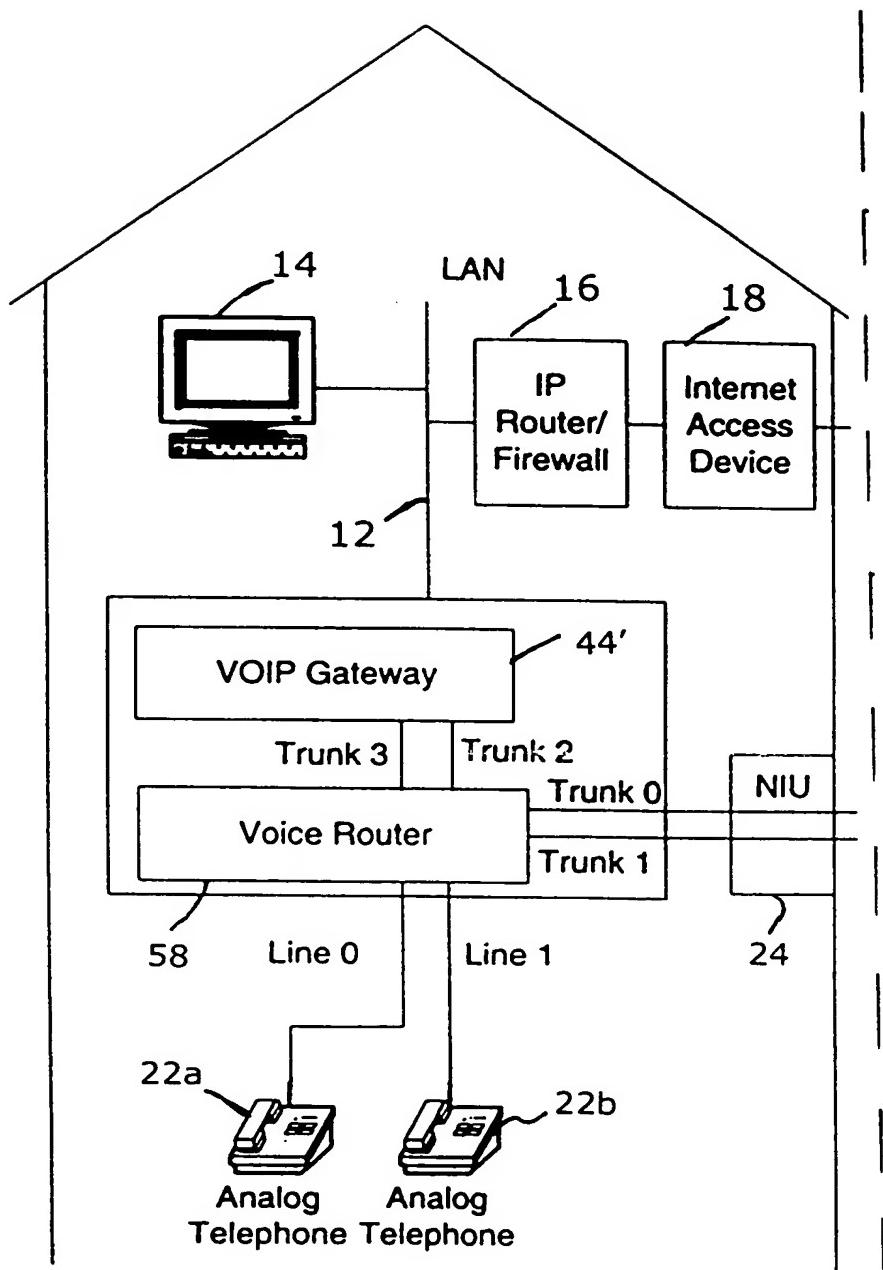


FIG. 12A

FIG. 12 FIG. 12A FIG. 12B FIG. 12C

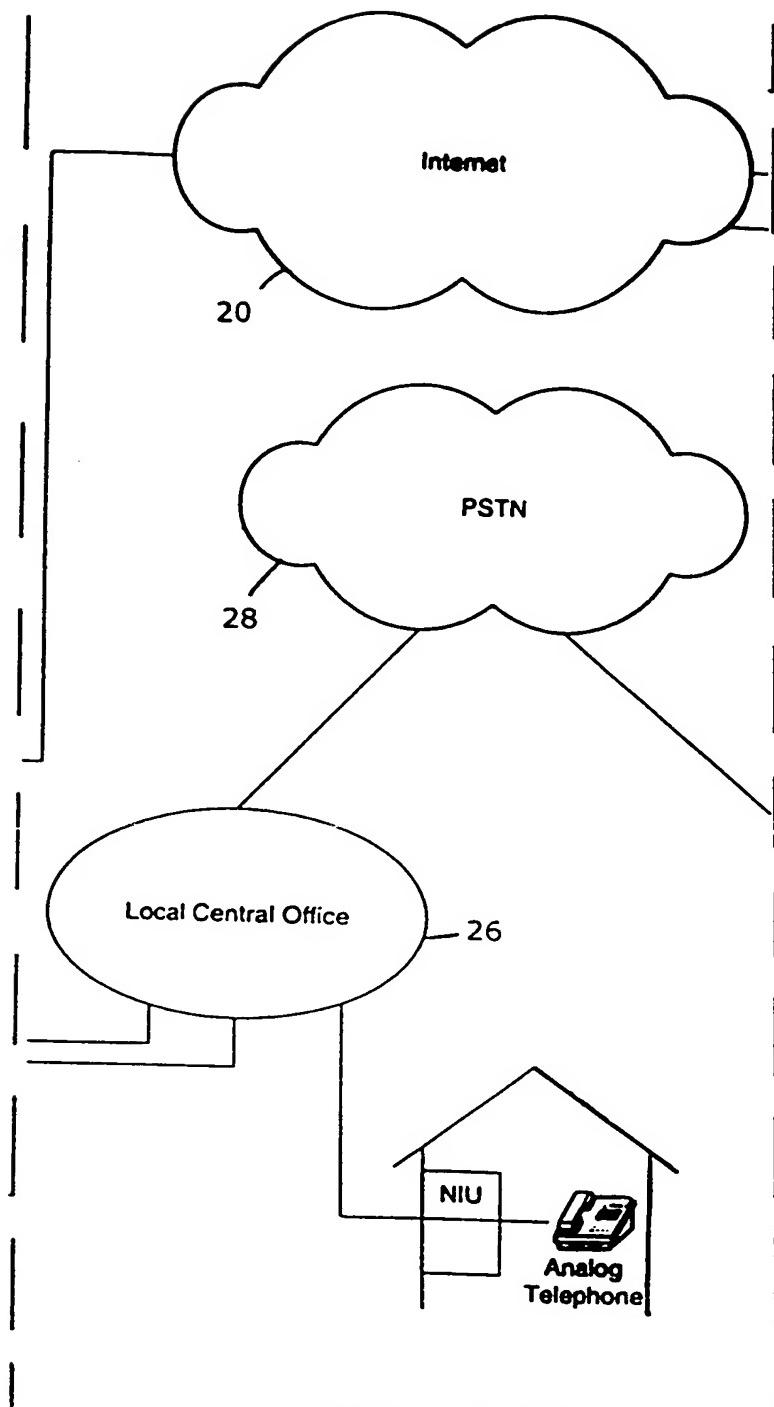


FIG. 12B

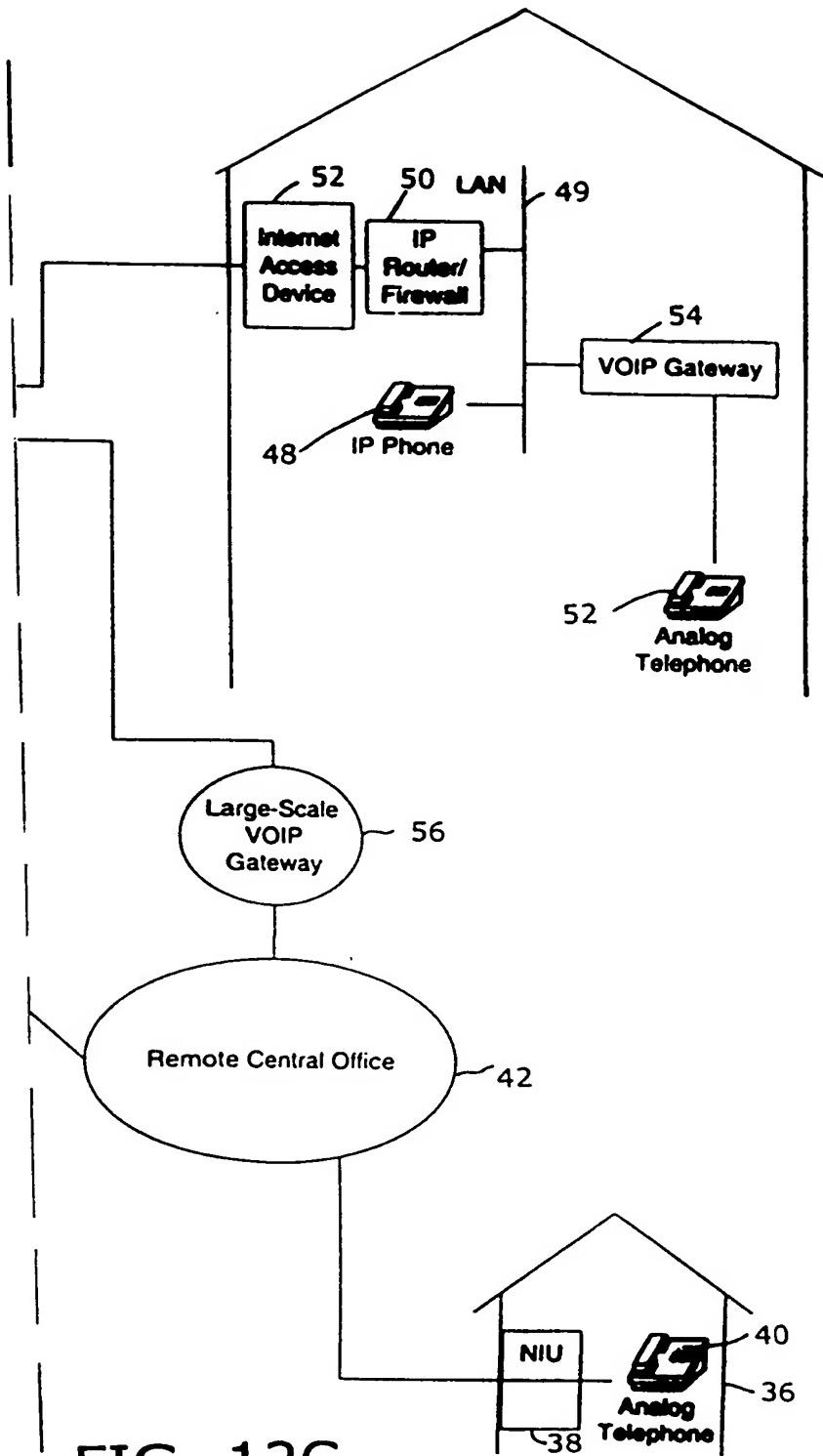


FIG. 12C

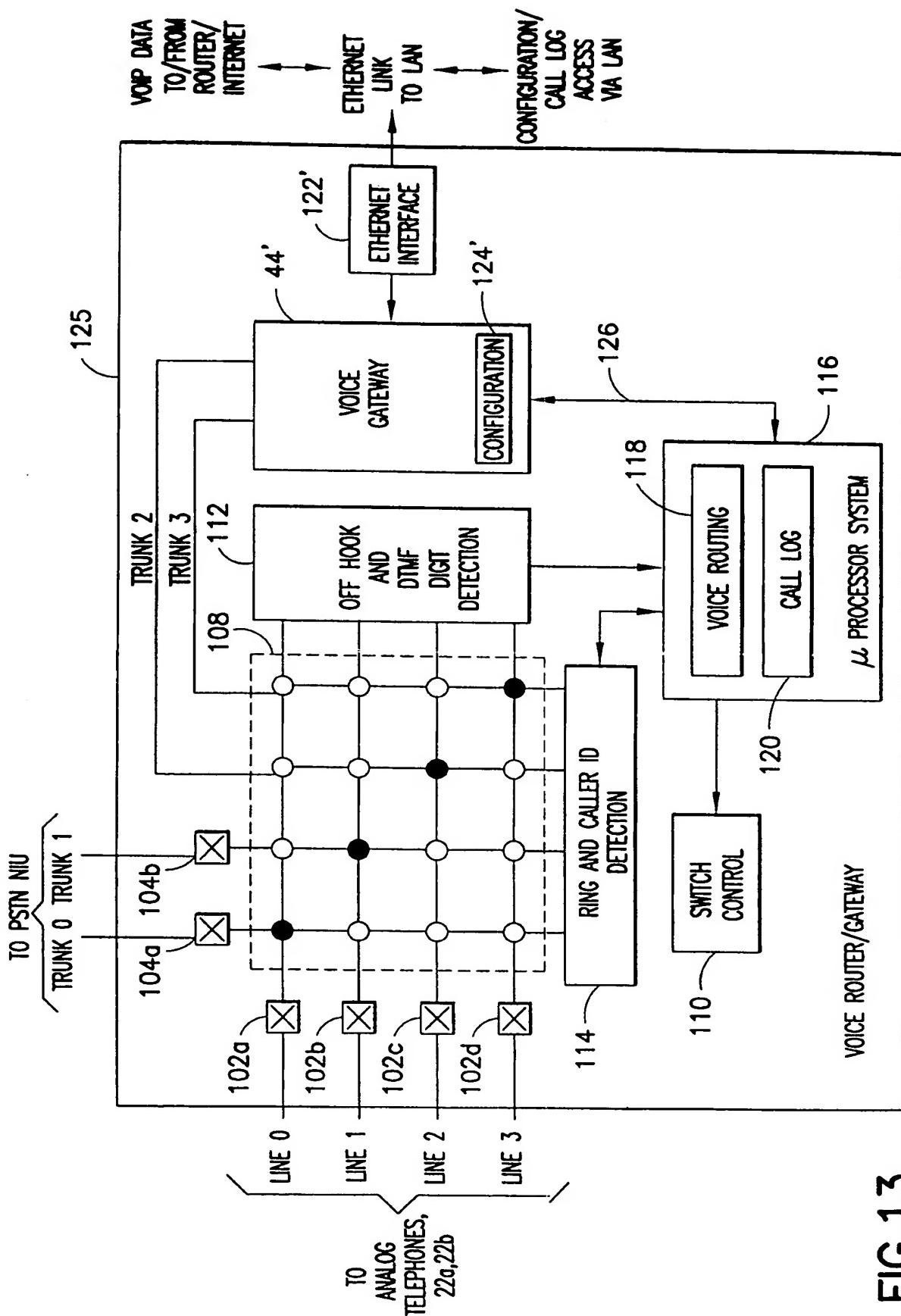


FIG. 13

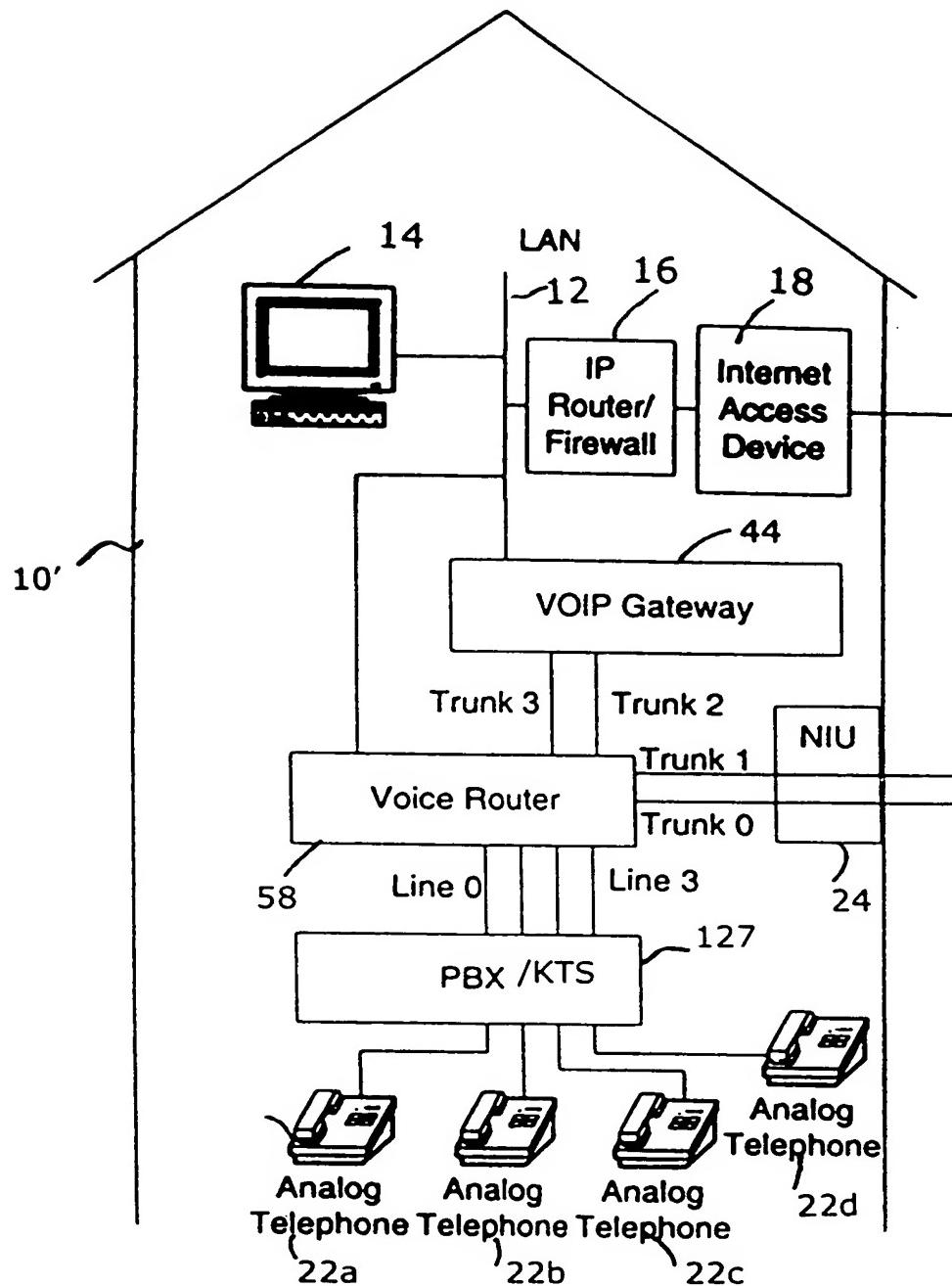


FIG. 14A

FIG. 14 **FIG. 14A** **FIG. 14B** **FIG. 14C**

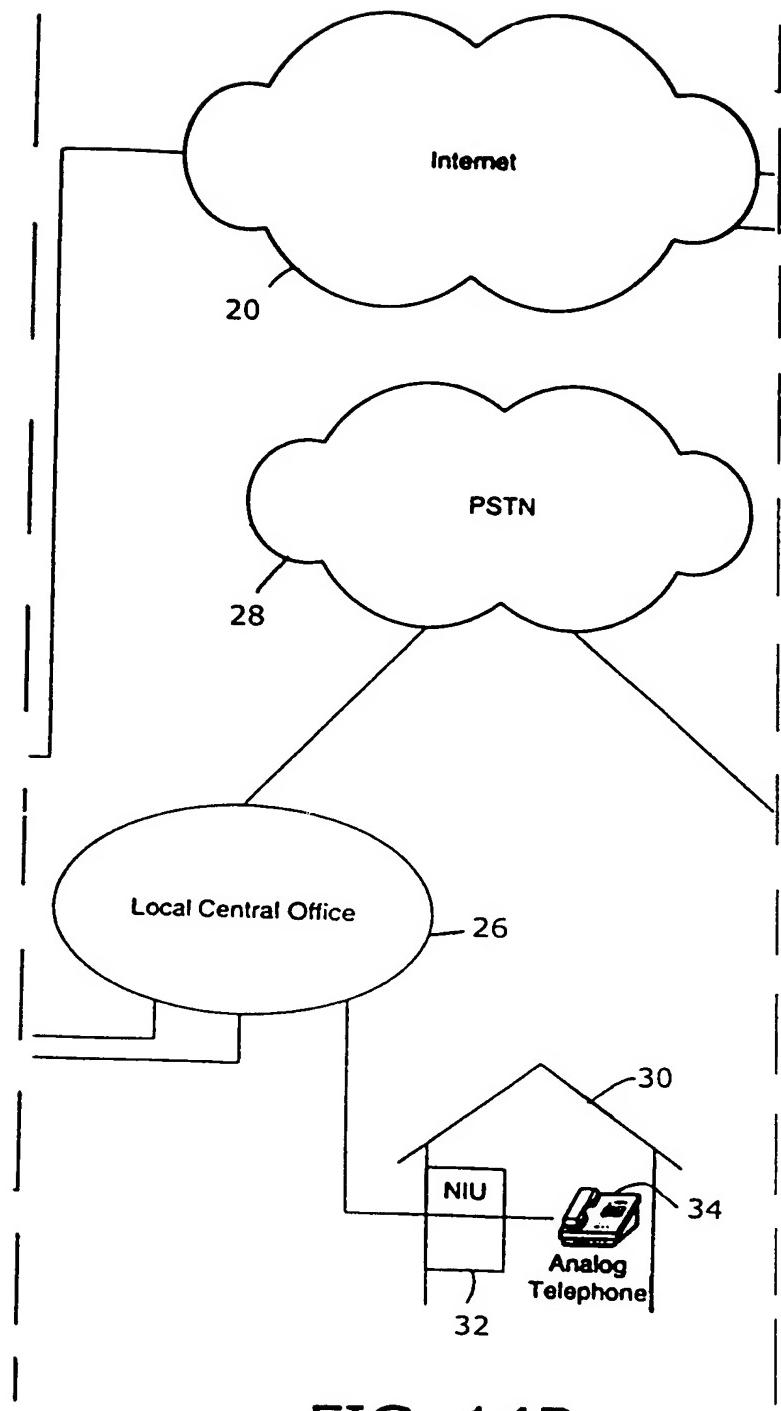


FIG. 14B

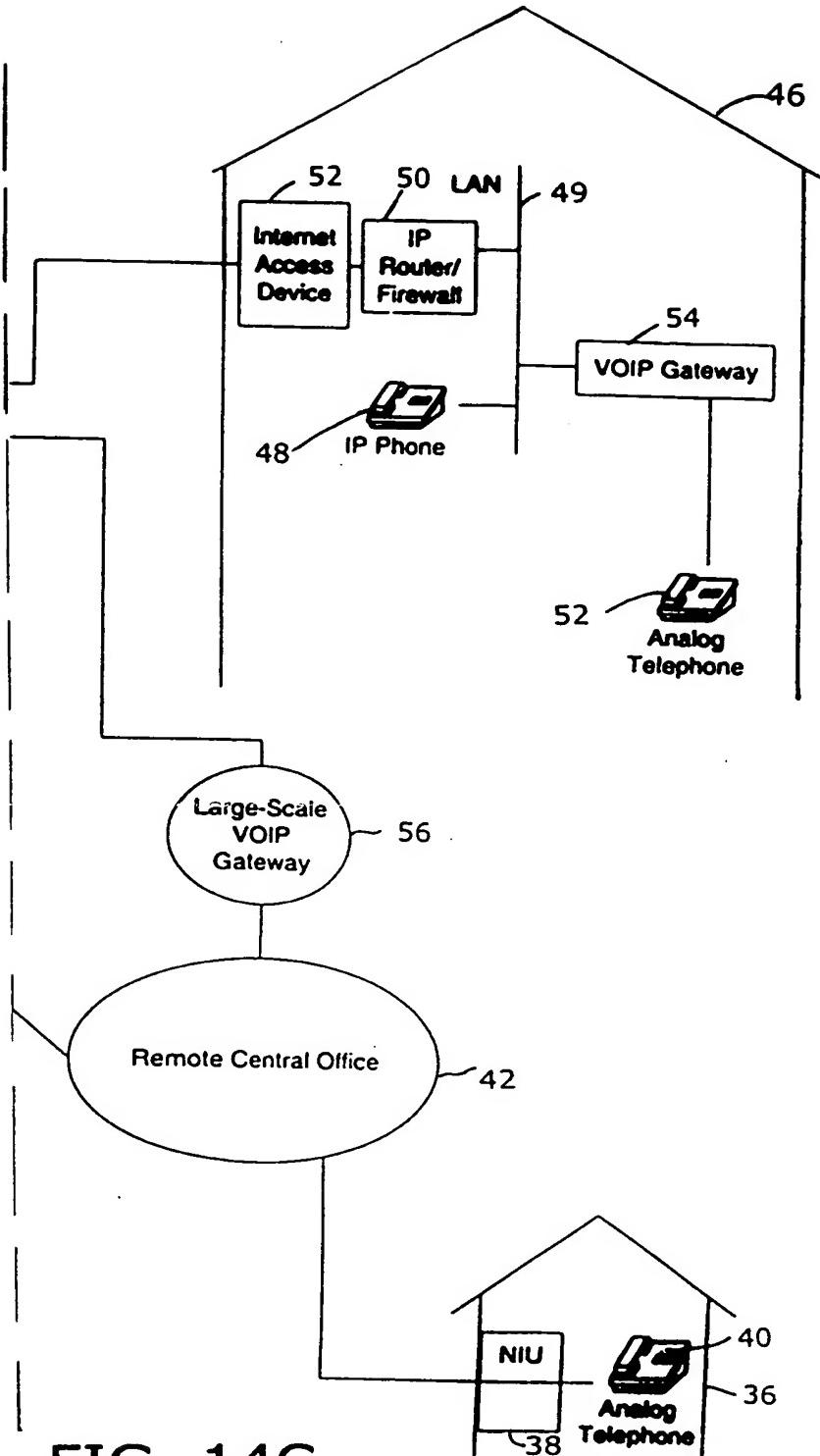


FIG. 14C

Fig. 15A

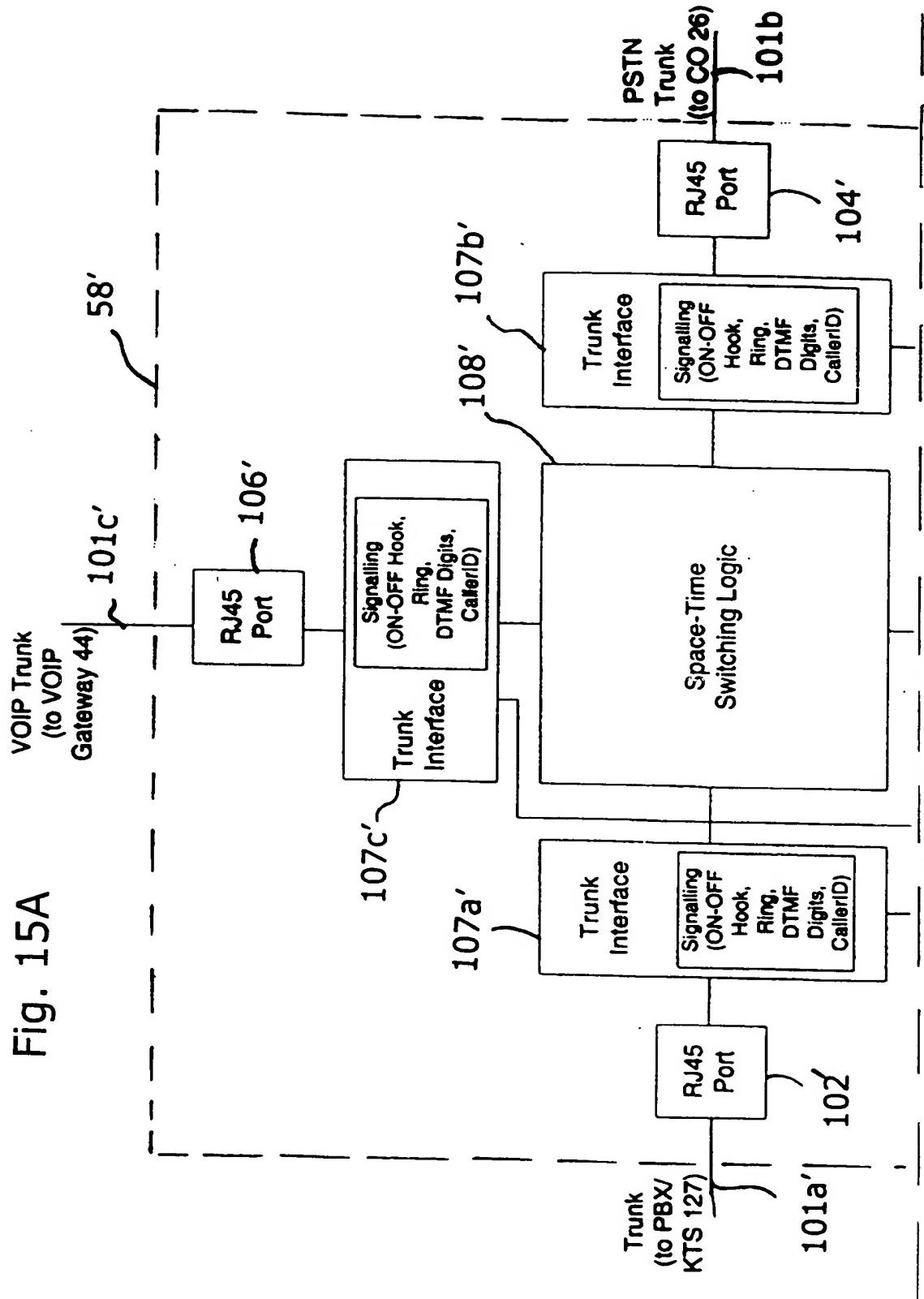


Fig. 15A
Fig. 15B

Fig. 15

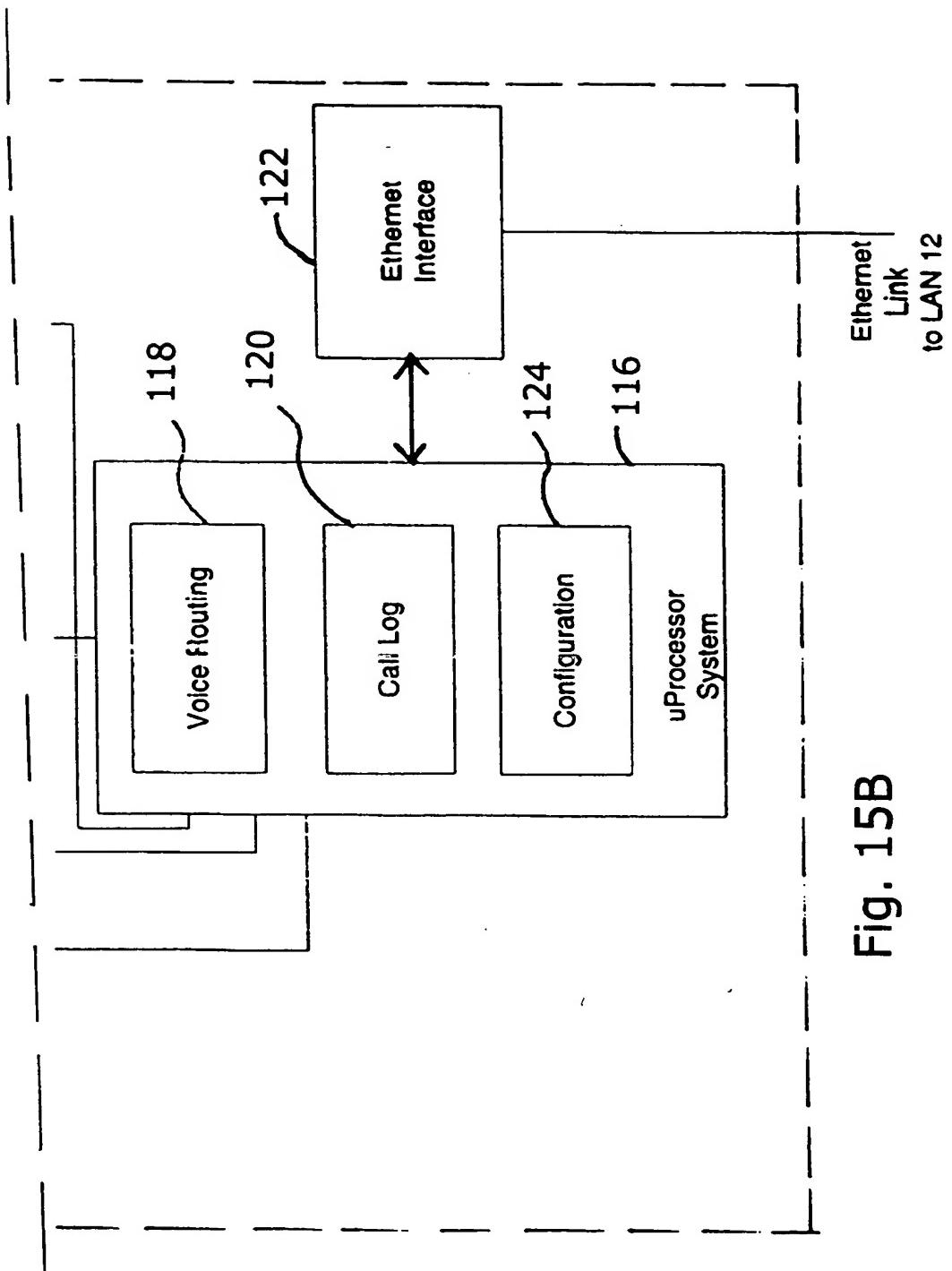


Fig. 15B